

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (previously presented) A method of identifying an anti-nematode agent, comprising:

administering a test compound to a nematode;

detecting a binding of the test compound to a major sperm protein of the nematode; and

monitoring a female sexual maturation of the nematode, wherein inhibition of the female sexual maturation indicates that the test compound includes the anti-nematode agent.

Claim 2. (previously presented) The method of claim 1, wherein monitoring the female sexual maturation of the nematode further comprises monitoring an oocyte meiotic maturation.

Claim 3. (previously presented) The method of claim 1, wherein monitoring the female sexual maturation of the nematode further comprises monitoring a gonadal sheath cell contraction.

Claim 4. (previously presented) The method of claim 1, wherein monitoring the female sexual maturation of the nematode further comprises monitoring an ovulation.

Claim 5. (previously presented) The method of claim 1, wherein monitoring the female sexual maturation of the nematode further comprises optical monitoring.

Claim 6. (previously presented) The method of claim 5, wherein optical monitoring further comprises optical monitoring by video microscopy.

Claim 7. (previously presented) The method of claim 5, wherein optical monitoring further comprises optical monitoring by fluorescent imaging.

Claim 8. (previously presented) The method of claim 1, wherein administering further comprises administering the test compound in combination with a pharmaceutically acceptable carrier.

Claim 9. (currently amended) A method of identifying an anti-nematode agent, comprising:

contacting a test compound to a major sperm protein polypeptide;

detecting a composition including, wherein the composition includes the test compound and the polypeptide;

administering the test compound to a nematode; and

monitoring a female sexual maturation of the nematode by optical monitoring, ~~wherein slowing of the female sexual maturation indicates that the test compound includes the anti-nematode agent.~~

Claim 10. (previously presented) The method of claim 9, wherein the polypeptide is SEQ ID NO: 2.

Claim 11. (previously presented) The method of claim 9, wherein monitoring the female sexual maturation of the nematode further comprises monitoring an oocyte meiotic maturation.

Claim 12. (previously presented) The method of claim 9, wherein monitoring the female sexual maturation of the nematode further comprises monitoring a gonadal sheath cell contraction.

Claim 13. (previously presented) The method of claim 9, wherein monitoring the female sexual maturation of the nematode further comprises monitoring an ovulation.

Claim 14. (currently amended) A method of identifying an anti-nematode agent, comprising:

affixing a test compound to a matrix;

incubating the test compound with a major sperm protein polypeptide;

washing the test compound to remove the major sperm protein polypeptide that is not bound to the test compound;

detecting a composition including, wherein the composition includes the test compound and the major sperm protein polypeptide;

administering the test compound to a nematode; and

observing a female sexual maturation of the nematode, wherein inhibiting the female sexual maturation indicates that the test compound includes the anti-nematode agent.

Claim 15. (previously presented) The method of claim 14, wherein the major sperm protein polypeptide is labeled.

Claim 16. (previously presented) The method of claim 14, wherein observing the female sexual maturation of the nematode further comprises observing an oocyte meiotic maturation.

Claim 17. (previously presented) The method of claim 14, wherein observing the female sexual maturation of the nematode further comprises observing a gonadal sheath cell contraction.

Claim 18. (previously presented) The method of claim 14, wherein observing the female sexual maturation of the nematode further comprises observing an ovulation.

Claim 19. (previously presented) The method of claim 14, wherein the nematode is selected from a group consisting of: a *fog-1* nematode, a *fog-2* nematode, a *fog-3* nematode, a *fem-1* nematode, a *fem-2* nematode, a *fem-3* nematode, and a *gld-1* nematode.